

## DECLARES FACTORY RATING HAS SMALL MEANING TO BUYER

"It doesn't take a long memory to recollect the days when the advertised horsepower of a vehicle was largely taken into consideration by the inexperienced buyer in comparing automobiles," says H. T. Thomas, vice president and chief engineer of the Reo Motor Car company. "He might have narrowed his choice down to two cars that looked alike to him and sold for about the same price. But one was rated by the manufacturer as having a motor of 60 horsepower and the other claimed only 35. So he bought the first, only to find, perhaps, that a friend who bought the other make could pull past him in any sort of tough going."

"For a time the advantage seemed to be with the tallest claimer for there was a new crop of first-car buyers each spring. But the thing couldn't go on forever. The S. A. E. established a basis which, while it might not be accurate for all types of motor, was at least definite."

"The question of capacity rating for motor trucks is in must the state that horsepower rating of passenger motors was ten years ago. In consequence a maker's tonnage rating indicates next to nothing."

"There is no standard basis for the rating of trucks. Each maker now fixes his own rating and the rating depends in part on his modesty, or tendency to exaggerate. It depends in part on the conditions of use he has in mind when he rates it, and further on his own knowledge of his own vehicle."

"Take Reo for instance. Away back six years ago when we designed the Speedwagon it was a pioneer vehicle. It had pneumatic tires, electric lighting and starting, and passenger car speed—things unheard of in a truck. It was natural that we should then have rated this job conservatively."

"The Speedwagon passed out into the hands of Reo users and little by little they began to pile more and more upon it. Now we are frank to admit that 30,000 Reo owners through the years of use have proved that the Speedwagon is a stronger truck than we dared to claim for it in the beginning."

"No motor truck can be given a blanket rating which will be accurate under all conditions. So much depends on a driver. We cannot say whether our truck would have a capacity of 1,500 pounds or 3,000 without knowing the conditions of use."

"Some users prefer to haul large overloads on their Speedwagon and figure on buying a new one frequently, rather than using slower, more costly vehicles. Others keep near the ton mark, give the truck the utmost care, and have a five years' expectancy. And other Speedwagon users usually have loads of less than a ton, but pile on more in the emergency, and find that with careful driving the truck comes through without harm."

"All of this does not even touch the problem of whether it's better to do the work by making two trips with a light, fast truck while a bigger truck would be making one."

## ST. LOUIS DEALERS HAVE NOVEL PLAN TO REDUCE COSTS

St. Louis automobile dealers are still finding it profitable to make use of one feature of their business which resulted from war conditions. As a result of the governmental request for the elimination of night and holiday service to release men to motor transport service, the St. Louis Automobile Manufacturers' and Dealers' association selected the St. Louis Motor Service company to handle all work of this nature."

Not only did they discover that it made possible the release of a large number of men, but that it enabled them to reduce their expenses at a time when the manufacturers were finding it difficult to deliver them cars in adequate numbers."

After the signing of the armistice, most of the dealers continued to keep their places closed nights, Sundays and holidays, and consequently most of the road trouble coming at these times is taken care of by this healthily growing war baby."

At the outset, the new company installed four Dodge Brothers motor cars which they put to use as service cars. So satisfactory is the response to the trying demands made upon them that the officials of the company have expressed their intention to add to their fleet as the occasion demands."

## SALES OF IRRIGATION EQUIPMENT SHOWING GREAT GAIN IN STATE

If indications of preparations being made by land owners throughout Arizona are any criterion, this state will become one of the foremost in the country in point of production before a very long time."

There are many things that point to this assumption, not the least among them being the vast amount of irrigation equipment being sold in the various irrigation districts, which equipment of course is being installed to cultivate the land and raise production of various kinds."

One company alone, the Western Machinery company of Los Angeles, California, having branch offices in Phoenix, Tucson and Casa Grande, reports sales of irrigation equipment running close on to a million dollars this year with a possibility, if sales keep up at the present rate, of going away over that figure."

The Western Machinery company are well known throughout the farm, cattle and mining districts of Arizona, where their equipments are being used in large numbers. The company claims to be selling about eighty per cent of the irrigation equipment that is being sold in Arizona at this time and from the number of installations they are making, there is no reason to doubt these figures."

It is a good sign for Arizona that sales of such equipment are running into such high figures. It has not been so long ago that the wise ones predicted that Arizona would never be un-

in the front ranks as a producer of products of the soil. But Arizona will and it won't be so far in the future either."

## FIRESTONE PEOPLE PLAN CO-OPERATION

Co-ordination of selling and production departments so as to give the best service to consumers is something for which big industries all over the country are striving. How best to secure this co-ordination is a problem which industrial experts are solving in varied and numerous ways."

Many corporations have formed departments whose particular duty it is to supply this vitally necessary link in their organizations. To these departments several have applied the

name sales engineering, signifying that the department is composed of technical men who are applying their mechanical knowledge to the solution of problems that confront the sales organization."

Such a department is in operation in the factories of the Firestone Tire and Rubber company at Akron, Ohio. In its broadest sense the department is the connecting link between the producer and the consumer, for in its last analysis, its object is "service."

Engineers in this department are men trained in tire construction methods but also versed in all the other various branches of the automotive industry. Some of them are experienced truck engineers and others give their particular attention to automobiles. Others have made a study of rubber and fabrics. Still others have studied the problems of the accessory dealer, the tire repair man and vulcanizer."

These engineers are working with the thought constantly in mind that the broad requirements of truck and passenger car operation cannot be filled by any one type of tire and that they must be always on the alert in devising new ways in which a product can be made more serviceable to the purchaser. They are everywhere at work in the field, studying performance of tires under various conditions, conferring with truck and passenger car manufacturers and seeking to know the tire needs of their business, or in the factory applying the knowledge gained in the field."

A large fleet of test cars is operated by the company as a further source of information in this respect. It is always at work, units traveling in all sections of the country and under all sorts of conditions."

As the result of this work the department is in a position to supply the needed co-ordination between the production and sales organizations of the company. They supply to the tire builder a knowledge of what the consumer is looking for in tires. They tell the sales department what qualities the tire builder has put into his product to make it so that it will fulfill certain conditions and thus guide the salesman in his efforts to help the consumer in the selection of the right tire for his truck or passenger car."

The plan is working well in the Firestone organization. With changes to suit special requirements it could be adapted readily to other industries."

## SHORTER DRAW BAR MEANS LESS FUEL

The additional fuel required to handle a trailer in connection with a truck is governed entirely by the amount of draw-bar pull necessary. It is there-

fore important to select a trailer that will operate with least resistance and will require the smallest amount of draw-bar pull."

Utility trailers, by actual road tests, require much less draw-bar pull than any other make of trailer. This is because of the mechanical correctness of each part, permitting greatest freedom from resistance. The wheels are accurately set at the right pinch and alignment is maintained by the patented steering device, whether the trailer is light or loaded to capacity."

It is interesting to note that from actual records kept by some of the largest corporations it has been conclusively proved that one 5-ton truck operated with a Utility trailer in connection uses less than a 5-ton truck carrying a 2-ton overload."

An added refinement is the reciprocating spring in the coupler bar. Two heavy coil springs are mounted on coupler bar bolt as shown in the illustration. The pull of the coupler bar bolt compresses the rear spring and in quick stops the forward spring is compressed. The entire pull must first go through the rear spring before passing to the trailer frame. The jerk and jar of quick starts and stops are absorbed in these springs."

It makes no difference what your wants may be, you can have them supplied by using and reading The Republican Classified Pages—Arizona's greatest advertising medium."

J. P. HANSON, Pres. E. C. VOSS, Sec. and Mgr.

## Arizona Iron Works Inc.

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Iron, Brass and Aluminum Castings

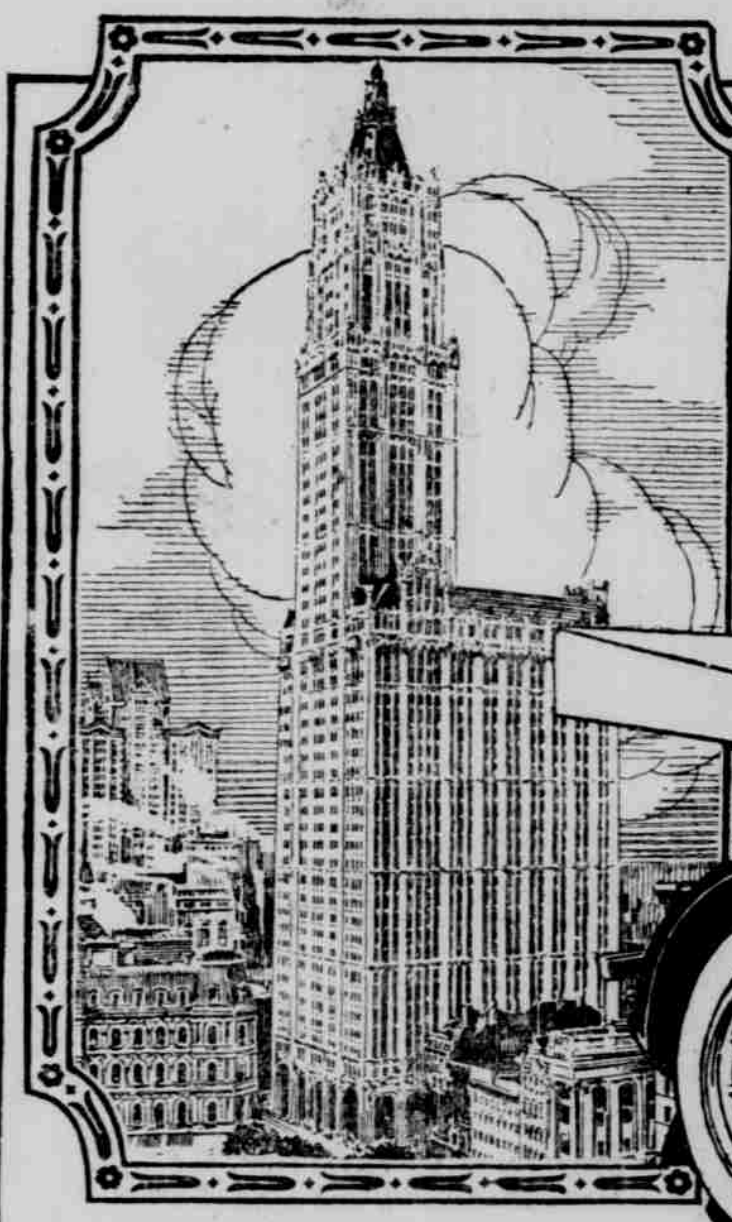
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### Franklin Established as America's Greatest Road Car by Succession of Cross Country Runs.





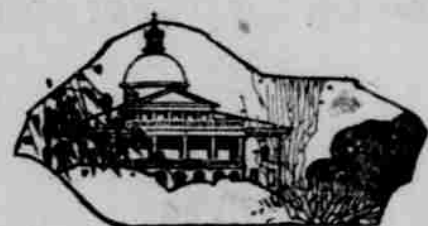
# The FRANKLIN CAR

New York to Montreal, 398 Miles, in 9 Hrs. 59 Min.

The quickest scheduled train journey now possible between New York City and Montreal, Canada, is 12 hours. A stock model Franklin Touring Car made the 398 miles in 9 hours 59 minutes running time on November 11th, setting a new touring record and equaling from New York to Albany the non-stop time of the Wolverine Express, 3 hours 20 minutes. Five hours of the trip were through rain, slush, snow, ice, and a gale that at times blew fifty miles an hour.

The return trip (401 miles) was made in 11 hours 28 minutes running time. The total elapsed time for the round trip was 24 hours 10 minutes, including time out for eating, replenishing fuel and oil and for customs inspections. No spare tires or tubes were carried. No tire chains were needed. No mechanical troubles developed.

The same driver, Mr. J. W. Banks, drove all the way. Mr. H. P. Merchant of the B. F. Goodrich Tire Company and Mr. J. R. Getty, of "Motor," were observers; Mr. L. A. Miller, passenger.



New York-Boston Round Trip, 458.8 Miles, in 12 Hrs. 5 Min.

On September 29th Mr. Banks drove a Franklin Touring Car from New York to Boston and back in 12 hours and 5 minutes, establishing what was then a road touring record of 458.8 miles at 38 miles an hour. He drove entirely at night without relief. No spare tires were carried, there were no tire accidents and the fuel average was 18 miles to the gallon of gasoline.



Yosemite

This year's Yosemite Run was won by Stanley S. Turner of Los Angeles in the Franklin Car. The Franklin took all three first prizes.

MT. WASHINGTON

P. E. Frost, of Portland, Me., included the climbing of Mt. Washington without a stop as part of a non-stop low gear run of 98.2 miles. Climbing the mountain without a halt is alone a record.

Every little while a Franklin Car in some section of the country sets a new road record or makes a clean sweep of an economy or reliability event. Recently Franklin drivers have made numerous 24-hour runs and long distance trips which prove that the Franklin Car is unsurpassed at piling up large mileage in a day's driving—over average highways or over all dirt roads. Here are the records—

865.4 miles in 24 hours—R. H. Cramer, Waterloo, Ia.  
832.6 miles in 24 hours—Will Diddel, Indianapolis, Ind.  
808.9 miles in 24 hours—P. A. Pfohl, Indianapolis, Ind.  
746.1 miles in 24 hours—J. H. Manion, Indianapolis, Ind.  
729.5 miles in 24 hours—J. T. Peacha, Duluth, Minn.  
725.2 miles in 24 hours—L. W. Snotin, Indianapolis, Ind.  
693 miles in 24 hours—Mrs. R. G. Reed, Boston, Mass.

406.3 miles in 12 hours in a Brougham—Mrs. O. C. Belt, Columbus, Ohio.  
New York to Montreal, 9 hours 59 minutes—J. W. Banks, Newark, N. J.  
Round trip between New York and Boston, 12 hours and 5 minutes.  
New York to Albany, 3 hours 30 minutes.  
Cincinnati to Cleveland and back in 15 hours and 45 minutes.

Making time in a Franklin does not consist of spurts of 60 to 70 miles an hour over every straight stretch of good road, alternating with long stretches of annoying slowness over roads not so favorable.

The secret of the Franklin Car's ability to make faster average time over long distances than any other car is simply that the power of the Franklin Car is not handicapped by heavy weight or rigidity and their attendant dangers, driving strain and discomfort. The light weight and flexibly built Franklin holds the roads at all speeds, hugs the turns, smooths out the rough stretches and is practically never held up by tire accidents.

## Franklin Motor Car Co.

CHILSON BROTHERS

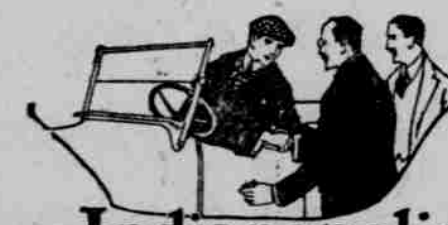
S. M. Starr, Manager

302 N. Central Ave.



Boston to Syracuse and Back, Driven by Woman in 24 Hours' Time

A new mark for women drivers was set when Mrs. Ralph G. Reed recently drove 693 miles in 24 hours and 20 minutes elapsed time. The route lay between Boston and Syracuse and return and required twice passing through the congested traffic districts of those cities. Mrs. Reed believes that a heavy storm through which she had to drive for a hundred miles prevented her making even better time.



Indianapolis

Reels Off 832.6 Miles in a Day

W. H. Diddel, of Indianapolis, a non-professional driver, recently established a record for his section of the country for a 24-hour road run by covering 832.6 miles of road in 22½ hours' actual running time. The trip was made in a stock model Franklin Touring Car, without ballast, shock absorbers, or any change from regular equipment. Mr. Diddel was accompanied by two official observers, but drove all the way himself.

865.4 Miles in 24 hours

A new 24-hour dirt road record was set when Ralph H. Cramer, of Waterloo, Ia., recently drove a Franklin stock car 865.4 miles in the actual driving time of 23 hours and 4 minutes. He drove the entire distance himself over ordinary dirt roads without a second's relief, beating the former record of J. T. Peacha, of Duluth, who covered 729.5 miles in a Franklin.

DETAILS OF THE RECORD

Total Running Time	23 hours 4 min.
Total Time for Fuel, Chains, Top up, etc.	56 minutes
Total Time Consumed	24 hours 0 min.
Total Mileage on Dry Roads	757 miles
Total Mileage on Mud Roads	108.4 miles
Total Miles Run	865.4 miles
Miles Per Hour Average Dry Roads	38.9 miles
Miles Per Hour Average Mud Roads	25.7 miles
Grand Total Average Per Hour	37.5 miles

The engine was stopped but once. No mechanical adjustments were made. No tire trouble. Driver: Ralph H. Cramer; Observers: W. A. Ridder; D. J. O'Neil, Waterloo Times Tribune; M. V. Briggs; R. S. McComb.



Cincinnati to Cleveland and Back, Twice Across Ohio, in 15 Hrs. 45 Min.

A motoring sensation was created in the state of Ohio when Cliff Leuders, without stopping the engine of his Franklin Touring Car, reduced the touring time from Cincinnati to Cleveland and back. He covered the 553 miles in 15 hours and 45 minutes of actual running. The odds were 4 to 1 that the previously announced time of 17 hours could not be made.

Covering this route at any speed is thought by Ohio motorists to be a severe test of any motor vehicle, so bad are the roads. Yet the Franklin averaged over 35 miles an hour. Rain which froze on the riders and turned into a blinding snowstorm added to the difficulties.

Observers, Mr. Robert Beiser, Automobile Editor, Cincinnati Enquirer; Mr. Richard Powell.

No mechanical adjustments of any nature were necessary during the trip. And the mileage of the last twelve hours was as big as that of the first twelve hours, indicating that the driver felt little or none of the fatigue ordinarily to be expected.

Two other Indianapolis motorists, likewise driving Franklins, also exceeded the former distance record. That, too, had been established by a Franklin Car.